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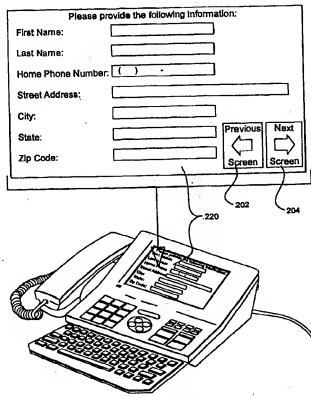
(54) Title: METHOD FOR TARGETED ADVERTISING

(57) Abstract

A method for targeted advertising is described, suitable for use with networked devices with a visual display. Advertisements are selected to be presented to a user based on a demographic and psychographic profile of the user, as well as response to previous advertisements by the user. In this way, targeted advertisements can be presented to the user on the visual display. In addition, various input devices are presented to allow the user to perform a transaction associated with the advertisement. Some of these transactions include calling the advertiser, placing an order for the advertised product or service, and requesting more information about the advertised product or service from the advertiser.

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# METHOD FOR TARGETED ADVERTISING

## BACKGROUND OF THE INVENTION

Field of the Invention

This invention relates to a method for targeted advertising. More particularly, this invention relates to a method for displaying, on a networked display with a visual display, advertisements designed specifically for each user based on a demographic and psychographic profile of the user and response to previous advertisements by the user.

Description of Related Art - Background of the Invention

The Internet is a popular vehicle for a wide variety of advertisement formats. One of these formats is commonly referred to as banner advertisements, or a wide billboard type advertisement which spans the width of the window or screen.

A primary object of advertising is to attempt to make sure that each advertisement is targeted; that is, advertisements are shown to people who are most likely to take interest in the given advertisement. Some methods download advertisements to Internet users based upon the words that a consumer enters when conducting a Web search. For example, a user might conduct a search on a search engine to find all of the Web pages that contain the word "car." When the results of the Web search are delivered to the Internet user, the consumer is shown a banner advertisement relating to cars. By showing the Internet user a more targeted advertisement, a search engine can charge the advertiser a higher price for each individual viewing of the advertisement, also known as an impression. Other methods target advertisements by examining the domain address of the Internet user. The domain address can be compared with a set of databases to determine the most appropriate advertisement available to show the consumer.



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While some methods have managed to target Internet advertising to a loose degree, they are limited in their ability to target advertisements because they do not have important information about the demographics of the users of their websites. Several have developed applications to deal with the problems faced by advertisers in targeting Internet advertising. One of these is to provide free electronic mail, or e-mail, to Internet users who must use a particular Web page to access their e-mail. In return for free e-mail, the Internet user must fill out an online form through which the Internet user tells the free e-mail service about his or her demographics and product interests. The free e-mail service analyzes this information, and when an Internet user with a free e-mail account goes to the particular Web page to access his or her e-mail, the free e-mail service displays advertisements targeted to the preferences of the Internet user. If the Internet user sees an advertisement of interest, he or she can click on the advertisement with the mouse and their Internet browser will automatically go to the advertiser's or related web page.

Other methods use a similar model to a screen saver or ticker display. These methods first make available a free software application which can be downloaded by Internet users. The users can then customize this free software to download information from only the specific news sources he or she desires. For example, a user could request to receive specific sections of New York Times, basketball scores, and stock quotes for selected companies. Every day, the information is updated for free. To pay for this free service, a portion of the software has a window dedicated to displaying advertisements which are targeted to the preferences of the user. If the user sees an advertisement of interest, he or she can click on the advertisement with the mouse and their Internet browser will automatically go to the advertiser's or related Web page.

The drawback of the models used by free e-mail services, screen savers, ticker displays, and others are twofold. First, the amount of time an Internet user is exposed to these advertisements is limited by the time spent using the applications. In the case of free e-mail services, the user must be online and at the particular web page accessing his or her e-mail to see an advertisement. Likewise,



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with screen saver or ticker display services, the individual must have downloaded and be using the specialized software to see an advertisement. Second, although the user can click on an advertisement an go to an advertiser's web page, the Internet user must go through a number of steps before a purchase or other transaction can be made. Generally, the Internet user must go through a number of web pages and fill in online forms before a purchase can be made.

Optimally, an advertisement should facilitate the purchasing process; a consumer would see an advertisement that interested him or her and simply click a button to initiate a transaction. Some progress has recently been made in the area of Internet telephony to facilitate purchases. Internet telephony is a technology that allows individuals to make telephone calls over the Internet. The advantage of Internet telephony is that the consumer no longer has to pay many of the tolls for telephone calls; long-distance calls are routed through the Internet, thereby eliminating long-distance charges. A new technology allows consumers to click on any web advertisement which is equipped with the technology and initiate an Internet telephony call.

There are several problems with this solution. First, an individual must be online and actively using the Internet at the time of the call to use it. That means the consumer must have an Internet enabled computer and also have invested in Internet telephony. Second, these advertisements face the same targeting issues faced by the solutions provided by search engines and free e-mail services. Third, there are significant performance problems with Internet telephony. Voice connections through Internet telephony have poor sound quality; this is a significant problem for advertisers trying to create a sale over the telephone. Lastly, there is no way to centrally collect information on the transactions made by Internet users. That is, there is no record of the calls made by the Internet user.

There are several other telephone related purchasing and/or auto-dialing systems that exist.

For example, in U.S. Patent No. 4,071,697, there is disclosed a complex interactive purchasing system which enables a user's television to become a



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shopping terminal. The television antenna receives broadcast signals from a transmitter station including a centralized computer system, and feeds the signal through a controller which continuously modulates and decodes the radiofrequency information. From the decoded information, the controller recognizes the address of discrete blocks of information as they are received. The viewer selects the block of information which he wants to see by means of a keyboard provided on the controller. The viewer may also indicate that he/she desires to purchase a particular item displayed on the television by depressing the appropriate keys on the keyboard. The controller then generates dual tone multifrequency (DTMF) dialing tones, i.e. the "touch tone" signals heard when dialing a push-button telephone, corresponding to the store from which the item may be purchased, and feeds the signal to an associated acoustic coupler on which the handset of the user's telephone rests. In this manner, the telephone number of the appropriate store is automatically dialed.

There are several limitations imposed by this system. First, it is almost impossible to provide advertising that is specifically geared toward the buying habits and demographic profile of the given household. In order to gear the advertisements specifically to the household, the broadcaster would either need to produce a separate broadcast for each household or the broadcaster would need to constantly go into the household to reprogram the household's controller. Second, the invention is extremely expensive, in that it requires a new cradle to hold the telephone handset, a controller, and a keyboard device. Third, the household must locate the telephone near the television.

There has also been some limited utilization of a marketing system involving broadcasting DTMF signals over the television and/or radio, thereby allowing consumers to have predetermined telephone number automatically dialed merely by holding telephone next to the television or radio speaker. This system has undesirable constraints insofar as the consumer's telephone must be located close to the television and/or radio, and use of the system is limited to the specific broadcast periods. Moreover, technological problems may be created by the



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simultaneous automatic dialing of a single number by, potentially, thousands of consumers.

Another invention that deals with autodialing of advertisers and the like is presented in U.S. Patent No. 4,941,172. This patent features an automatic telephone number dialing service for use with mass-distribution media products such as magazines and newspapers to enable consumers to automatically dial a preprogrammed number associated with one or more sources of goods and/or services. The dialing device includes a single chip microprocessor capable of producing DTMF tones corresponding to the preprogrammed telephone. By passing the tones through a miniature speaker or other sound transducer, the preprogrammed number will be automatically dialed. While the invention is a excellent solution in its given niche, it is not a reprogrammable solution and it is also not possible to change the display presented to the consumer on the device. Furthermore, as opposed to attaching itself to the telephone line, the device relies on a speaker that must be placed in close proximity with the telephone handset in order for the device to work. Finally, each device has a limited life span, dictated by the life of the battery built into the unit.

There are many other interactive systems involving the automatic dialing of telephones. For example, in U.S. Patent No. 4,456,925, the patentee proposes to integrate a telephone with a standard television receiver so that repertory stored telephone numbers may be recalled for display on the television receiver screen before being automatically dialed.

This system has limitations in that it provides no mechanism for targeting the information or advertising to the user. Also, it provides no capacity for including coupon information or other information that is pertinent to the party being called in order to identify either the user or the special pretext under which a call was placed.

There is a need for a targeted advertising system which provides a mechanism for targeting the advertising to the user, and to provide the capacity for



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including coupon information or other pertinent information to identify the user or the special pretext under which a call or request was placed.

## SUMMARY OF THE INVENTION

An object of the present invention is to provide a method for targeted advertising on a networked device with a visual display.

Another object of the present invention is to provide an input device to allow the user to perform a transaction associated with the targeted advertising, such as calling the advertiser or ordering the product or service advertised.

Yet another object of the present invention is to provide a method for targeted advertising on a networked device with a visual display, where the targeted advertising is selected in response to a demographic and/or psychographic profile of the user.

Still another object of the present invention is to provide a method for targeted advertising on a networked device with a visual display, where the targeted advertising is selected according to response to previous advertisements by the user.

These and other objects are achieved in a method of selecting a presentation to be shown to a user and allowing the user to perform a transaction associated with the presentation. This method includes obtaining information associated with the user, selecting a presentation in response to the information, and providing an input device which allows the user to perform a transaction associated with the presentation.

## BRIEF DESCRIPTION OF THE FIGURES

FIGURE 1A shows a typical screen phone which is capable of practicing the targeted information and advertising system of the present invention.

FIGURE 1B shows a system block diagram of the targeted information and advertising system of the present invention.



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FIGURE 1C shows an advertisement window.

FIGURE 2A shows screen phone with a survey form displayed on screen.

FIGURES 2B-2D show examples of other survey forms for collecting additional and more detailed demographic and psychographic data about user.

FIGURE 3A shows a flowchart of initial interaction of user with screen phone.

FIGURE 3B shows a flowchart of call initiation and scheduling for screen phone.

FIGURE 3C shows a flowchart for a typical information exchange between screen phone of a new user with server.

FIGURE 3D shows a flowchart for a typical information exchange between screen phone of an established user with server.

FIGURES 4A-4D show flowcharts for Call button, Order button, Mail Info button, and Similar Offers button.

FIGURE 4A shows a flowchart for Call button.

FIGURE 4B shows a flowchart for Order button.

FIGURE 4C shows a flowchart for Mail Info button.

FIGURE 4D shows a flowchart for Similar Offers button.

FIGURE 5 shows a flowchart for advertisers placing an advertisement.

## DETAILED DESCRIPTION OF THE INVENTION

FIGURE 1A shows a typical screen phone 100 which is capable of practicing the targeted advertising system of the present invention. Screen phone 100 may include a screen 102 with an advertisement window 200, handset 104, keyboard 106, mouse 108, and other suitable input and feedback devices. Screen 102 provides a user 130 with information and feedback, handset 104 allows user 130 to communicate by voice, keyboard 106 allows user 130 to input information, and mouse 108 allows user 130 to point at objects or use a graphical user interface. Although screen phone 100 is shown, the present invention may also be practiced with other wired and wireless networked devices with visual displays, such as a



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cellular phones, personal computers, network computers, wireless phones, pagers, and Internet set-top boxes.

FIGURE 1B shows a system block diagram of one embodiment of the targeted advertising system of the present invention. Again, screen phone 100 includes a screen 102, handset 104, keyboard 106, mouse 108, and other suitable input and feedback devices, all of which allow user 130 to interact with screen phone 100.

Screen phone 100 also includes a processor 110. Processor 110 uses a working memory 112 and an application memory 114. Application memory 114 contains application instructions 116. These applications may include a web browser, electronic mail (e-mail), live video, speed-dial directory, and other phone features such as number display and caller identification. Screen phone 100 may include a modem 118 with a dual tone multi-frequency (DTMF) chip which permits it to connect to server 120 over a standard telephone line. In alternative embodiments, screen phone 100 may use connection methods other than a modem over a standard telephone line to allow it to connect to communication networks such as wireless, cellular, or cable.

Server 120 uses a working memory 122 and an application memory 124. Application memory 124 contains instructions 126 to run server 120 and communicate with screen phone 100. Server 120 also controls a bank of advertisements 128.

FIGURE 1C shows a close-up view of advertisement window 200. User 130 may interact with advertisement window 200 via several input devices or buttons. The buttons may be implemented as on-screen touch-sensitive buttons, specific physical buttons built into screen phone 100, or other buttons on screen phone 100 corresponding to the desired functions. Alternatively, the functions of these input devices or buttons may be voice-activated. The information selected to be shown on advertisement window 200 need not be limited to advertisements, and may also be used to display other information such as local weather and local news.



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Previous button 202 shows the previous advertisement. Next button 204 shows the next advertisement. Call button 206 automatically dials the number and connects user 130 with the advertiser. Order button 208 automatically orders the product or service advertised. Mail Info button 210 requests that more information for the current product or service be mailed to user 130. Similar Offers button 212 shows other advertisements similar to the current advertisement.

A wide variety of other buttons may also be provided on screen phone 100. A Go Online button would initiate the modem of the networked device, causing screen phone 100 to connect to an Internet service provider (ISP). Once connected to the ISP, a web browser would automatically be opened and the appropriate web page presented on screen phone 100. A Fax Response button would send a fax to the advertiser requesting more information or placing an order for the advertised product. A Download Software button would cause screen phone 100 to download software from a remote site. An Add to Phone List button would automatically add the phone number of an advertiser to a speed-dial directory on screen phone 100. A Receive Phone Call button would ask the advertiser to make a phone call to the user. A Take Survey button would download an electronic survey that would be displayed on screen phone 100. After the survey was completed, it would be returned to the advertiser or surveyor. A Request Directions button would download and display directions to an advertiser's business establishment, or the closest location if there are several. An E-Mail button would open an e-mail application and create a new e-mail automatically addressed to the advertiser. A Take Picture button would take a picture of the user on devices equipped with a camera, and send it in electronic form to the advertiser. The Take Picture button could be used for personalization of products sold through screen phone 100. For example, the Take Picture button could be used to create a credit card with a photo identification.

FIGURE 2A shows screen phone 100 with a survey form 220 displayed on screen 102. Survey form 220 may be used for collecting basic information on user 130, including user name, address, and phone number. This basic information may



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be analyzed by server 120 to determine which advertisements and information should be sent to screen phone 100. The information may also be used to determine the appropriate shipping address to use when user 130 presses Order button 208.

FIGURES 2B-2D show examples of other survey forms 220 for collecting additional and more detailed demographic and psychographic data about user 130, including employment status, hobbies, and interests. Survey forms 220 may make use of previous button 202, next button 204, and a finished button 214.

Survey forms 220 can be programmed in any language supported on screen phone 100. In a preferred embodiment, survey forms 220 are supported by hypertext markup language (HTML), Personal Java, native telephone application programming interface (API) for screen phones, or a combination of these programming languages. These languages have low memory requirements and will be widely supported by screen phones as well as other information appliances. These languages and APIs are supported in application memory 114. The languages provided on any given screen phone 100 may be used to develop the client-side applications. For example, screen phone 100 may have a telephone API. This telephone API is the software that allows screen phone 100 to produce the tones required to dial phone calls and allows screen phone 100 to speed-dial numbers stored in application memory 114, a feature supported by most modern push-button phones. A screen phone 100 that provides a Web browser may have HTML available on the screen phone. HTML is a standard for creating and displaying Web pages. Furthermore, many screen phone manufacturers have already committed to providing Personal Java on screen phones. Personal Java may be used on these screen phones to create applications for user 130.

FIGURE 3A shows a flowchart for screen phone 100 performing an initial interaction with user 130. Screen phone 100 leads user 130 through survey forms 220 that gather demographic and psychographic data, which screen phone 100 stores internally and uploads at a later time to server 120. This includes: (1) checking to see if screen phone 100 is being turned on for the first time (block



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302); (2) presenting survey forms 220 on screen 102 (block 304); (3) receiving demographic and psychographic information entered by user 130 (block 306); and (4) storing this information entered by user 130 (block 308). TABLE 1 shows an example of the types of demographic and psychographic information that may be collected, and how screen phone 100 may store this information in the form of a consumer information data structure. The consumer information data structure is created when a consumer first uses screen phone 100. This information is transferred to server 120 on the initial connection to server 120. Additionally, screen phone 100 may periodically check this information with the user 130 to keep it current. This updating process may also prompt user 130 for additional information in the future in order to improve the demographic and psychographic profile of user 130. Demographic and psychographic information are useful in determining the buying habits of consumer households. Often there is a correlation between the traits of a household and the types of products that household will buy. For example, households with high incomes tend to invest more money, and sports enthusiasts are more likely to read sporting magazines. As market research exposes additional correlations between a household's demographic/psychographic profiles and buying habits, it may become necessary to update the information stored in server 120. Therefore, additional survey forms may be provided to user 130.

FIGURE 3B shows a flowchart for screen phone 100 performing call initiation and scheduling. This includes: (1) checking to see if the current time is the pre-appointed dial-in time (block 322); (2) establishing a connection with server 120 (block 324); (3) uploading an identification code associated with user 130 to server 120 (block 326). The establishment of a connection with server 120 may alternatively take place immediately after user 130 has just used screen phone 100 for the first time. Screen phone 100 may be equipped with an internal clock or other timing device. At regular intervals, the client software will check the current time. If the current time matches the dial-in time that has been preset on screen phone 100, the client-side software sends a command to application memory



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114, causing screen phone 100 to dial in. Once a connection has been established with server 120, a unique identification code is provided to server 120. The identification code will be used to determine the identity of user 130 and to ensure that screen phone 100 receives the appropriate information.

FIGURE 3C shows a flowchart for server 120 undergoing a typical information exchange with screen phone 100 for a new user 130. This includes: (1) checking to see if information for user 130 already exists in the database to determine that user 130 is new (block 342); (2) creating a new database record for user 130 (block 344); (3) receiving and storing the demographic and psychographic information from screen phone 100 (block 346); (4) creating a set of advertisements and a presentation schedule for user 130 in response to this information (block 348); and (5) downloading a set of advertisements and presentation schedule to screen phone 100 (block 350). At this time, a rewards program may also be set up, such as a frequent flyer miles program. The process described in FIGURE 3C essentially creates a new account for a new user. This new account will be maintained by server 120 in the future. The demographic and psychographic information will be used to determine what advertisements and information should be sent to user 130. Furthermore, particular pieces of the demographic information, such as the name and address, will be used for shipping information and products to user 130.

TABLE 2 shows an example of how server 120 may store the demographic information received from screen phone 100 in the form of a household profile data structure. This data structure resides on server 120 and is similar to the consumer information data, but there are a couple of differences. Primarily this data structure also has credit, debit, and smartcard information, received by means other than from survey forms 220. The assumption is that user 130 will not want to type that information into screen 102 and may instead call directly and provide it. TABLE 3 shows an example of a schedule data structure, which includes the priority of each advertisement as well as its content. This data structure is downloaded from server 120 to screen phone 100 and is replaced every time there is an advertising



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schedule update. It contains all the advertisements that are being shown on a given screen phone. The field names match up to fields discussed in some of the earlier flow charts.

FIGURE 3D shows a flowchart for server 120 undergoing a typical information exchange with screen phone 100 of an established user. This includes: (1) checking to see if information for user 130 already exists in the database to determine that user 130 is not new (block 362); (2) receiving and storing client transaction information from screen phone 100 (block 364); (3) clearing the client transactions information from screen phone 100 (block 366); (4) creating a new set of advertisements and a schedule for user 130 in response to both previously stored and new information about user 130 (block 368); and (5) downloading the new set of advertisements and presentation schedule to screen phone 100 (block 370).

Client transaction information may include advertiser name, advertisement number, advertisement type, transaction type, and time and date of transaction. TABLE 4 shows an example of how server 120 might store client transactions in the form of a client transactions data structure. This data structure may also be stored on screen phone 100 and keeps a record of whenever user 130 makes a transaction, such as an order request, mail more info request, or send similar offers request.

Server 120 may also record all transactions in a master transactions data structure. This allows an overview of all client transactions and compilation of useful statistics, such as how often a particular advertisement was accessed. TABLE 5 shows an example of a master transactions data structure. This data structure is a record of all transactions that have happened on all screen phones supported by a particular server 120. For example, information such as the advertiser name, particular advertisement, advertisement type, transaction type, transaction result, and time and date of transaction can be stored in this type of data structure.

FIGURES 4A-4D show flowcharts for Call button 202, Order button 204, Mail Info button 206, and Similar Offers button 208. When user 130 desires to be



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directly connected via voice to the advertiser, user 130 activates Call button 202. When user 130 desires to order the products or services offered by the current advertisement, user 130 activates Order button 204. When user 130 desires more information to be mailed on the products or services offered by the current advertisement, user 130 activates Mail Info button 206. When user 130 desires to receive information or offers that are similar to the products or services offered by the current advertisement, user 130 clicks Similar Offers button 208. Each Call button advertisement will have a telephone number associated with the advertisement.

FIGURE 4A shows a flowchart for Call button 202. This includes: (1) receiving a command from Call button 202 (block 402); (2) finding the phone number associated with the advertisement (block 404); (3) dialing the phone number associated with the advertisement (block 406); and (4) creating and storing a record of the call (block 408). Call button 202 allows user 130 to establish a direct connection with the advertiser or sponsor of the advertisement, without having to remember or dial any phone numbers. When user 130 presses Call button 202, screen phone 100 will convert the number into the tones that are used to place the telephone call. Call button 202 is well suited for supporting advertisements for companies that have traditionally sold their products over the phone. For example, food delivery services would be particularly appropriate businesses to place advertisements that use Call button 202.

FIGURE 4B shows a flowchart for Order button 204. This includes: (1) receiving a command from Order button 204 (block 412); (2) requesting a password from user 130 (block 414); (3) verifying that the password entered by user 130 is valid (block 416); (4) aborting the transaction if the password entered by user 130 is invalid (block 418); (5) creating and storing a record of the request to order the product (block 420); and (6) alerting the advertiser of the request to order the product (block 422). The process of alerting the advertiser may take place immediately or at predetermined intervals. A standard format may be used for transferring these records. TABLE 6 shows an example of how server 120 may



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store an order queue data structure. This data structure is used to temporarily store information that will eventually be sent to advertisers who are filling orders for user 130. Records to this data structure are created by when user 130 uses Order button 204 to order the product or service in the advertisement. This data is uploaded to server 120 and stored there until sent to advertisers for fulfillment. The process outlined for Order button 204 takes a request for an item from user 130, ensures that user 130 is authorized to use Order button 204, and then transfers that request to server 120 so that the product can be purchased and sent to user 130. The order queue data structure may be used so that an advertiser receives all of the orders requested through Order button 204 at one time, or it may configured so that the advertiser receives a new message every time Order button 204 is pressed.

FIGURE 4C shows a flowchart for Mail Info button 206. This includes: (1) receiving a command from Mail Info button 206 (block 424); (2) creating and storing a record of the request to mail information (block 426); and (3) alerting the advertiser of the request to mail more information (block 428). TABLE 7 shows an example of how server 120 may store a mail info queue data structure. This data structure is used to temporarily store information that will eventually be sent to advertisers who are mailing information to user 130. Records to this data structure are created when user 130 uses Mail Info button 206 to request more information to be mailed. This data is uploaded to server 120 and stored there until sent to advertisers for fulfillment. The process outlined for Mail Info button 206 takes a request for information from user 130 and then transfers that request to server 120 so that information can be sent to user 130. The mail info queue data structure may be used so that an advertiser can receive all of the mail info requests made through Mail Info button 206 at one time, or it may be configured so that the advertiser receives a new message every time Mail Info button 206 is pressed.

FIGURE 4D shows a flowchart for Similar Offers button 208. This includes: (1) receiving a command from Similar Offers button 208 (block 432); and (2) creating and storing a record of the request for similar offers (block 434). TABLE 8 shows an example of how server 120 may store a similar offers queue



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data structure. This data structure temporarily stores information when user 130 uses Similar Offers button 208 to request that similar offers be advertised in the future. Advertisements currently available or placed in the future can then be targeted to a specific user 130 who has asked for similar offers. Similar Offers button 208 may also be used to extend the information used in the user demographic and psychographic profile. When advertisements are scheduled, information collected from the use of Similar Offers button 208 can be used as an additional point of information when targeting advertisements.

FIGURE 5 shows a flowchart for server 120 assigning advertisements to households. This includes: (1) receiving the advertisement content and advertiser criteria (block 602); (2) comparing this information to the demographic, psychographic, and past transaction information of households in the database (block 604); (3) selecting appropriate households to receive the advertisement (block 606); (4) assigning the advertisement to the selected households (block 608); and (5) downloading the advertisement during a next connection to screen phone 100 (block 610). Advertisements can be scheduled at different times for download to screen phone 100. TABLE 9 shows an example of how server 120 assigns advertisements to selected households in the form of an assigned advertisements data structure. This data structure has all of the advertisements for all time that are assigned to a particular screen phone 100. TABLE 10 shows an example of how server 120 stores a product areas data structure. The product areas data structure assigns every advertiser and advertisement to a product or service area or category for classification. This is used when user 130 asks for similar offers to be advertised in the future. In order to maximize the value of advertisements placed on screen phone 100, each advertisement is assigned to users 130 who are the most likely to act upon the given advertisement. Therefore, to select which users 130 and screen phones 100 to send advertisements to, queries are made which examine users' demographic profiles, psychographic profiles, and past transaction information. When the appropriate set of users 130 has been identified, a record is made for each user 100 and screen phone 100 who should



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receive the given advertisement. When screen phone 100 accesses server 120, it then searches for advertisements that have been assigned to the particular screen phone 100.

The foregoing description of a preferred embodiment of the invention has been presented for purposes of illustration and description. It is not intended to be exhaustive or to limit the invention to the precise forms disclosed. Obviously, many modifications and variations will be apparent to practitioners skilled in this art. It is intended that the scope of the invention be defined by the following claims and their equivalents.



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TABLE 1: Consumer Information

| Field | Type | Length | Description |
|---|---|---|---|
| FirstName | Text | 25 | First name |
| LastName | Text | 25 | Last name |
| HomeNumber | Text | 10 | Home phone number |
| StreetAddress | Text | 50 | Street address |
| City | Text | 30 | City of residence |
| State | Text | 2 | State of residence |
| ZipCode | Text | 5 | Zip code |
| Password | Text | 10 | 6 to 10 character password used for verifying transactions |
| Gender | Text | 1 | Male or female |
| YearOfBirth | Text | 4 | Year of birth |
| MaritalStatus | Text | 1 | Marital status (single, married, etc.) |
| NumberOfChildren | Integer | 2 | Number of children under 18 living in household |
| LevelOfEducation | Text | 1 | Highest level of education achieved (some high school, high school, 2 year college, college, etc.) |
| EmploymentStatus | Text | 1 | Employment status (full time, part time, etc.) |
| HouseholdIncome | Text | 1 | Household income with ranges (0 to 19,999, 20,000 to 30,000, etc.) |
| I_Computers | | | Interested in information/offers on computers and communications (e.g., hardware, software, peripherals, etc.) |
| I_Entertainment | Text | 1 | Interested in information/offers on entertainment (e.g., dance clubs, concerts, the arts, etc.) |
| I_Hobbies | Text | 1 | Interested in information/offers on personal hobbies (e.g., art, cooking, photography, etc.) |
| I_Food | Text | 1 | Interested in information/offers on home food delivery (e.g., pizza delivery, groceries, etc.) |
| I_Services | Text | 1 | Interested in information/offers on home services (e.g., cleaning, repair, plumbing, etc.) |
| I_Money | Text | 1 | Interested in information/offers on money and finance (e.g., investing, banking, retirement, etc.) |
| I_News | Text | 1 | Interested in information/offers on subscriptions and trial offers for newspapers and magazines |
| I_Sports | Text | 1 | Interested in information/offers on sports and fitness (e.g., health clubs, golf, skiing, etc.) |
| I_Leisure | Text | 1 | Interested in information/offers on travel and leisure (e.g., car rental, airlines, restaurants, hotels, etc.) |
| I_Other | Text | 1 | Interested in information/offers on a number of other interest areas |



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TABLE 2: Household Profile

| Field | Type | Length | Description |
|---|---|---|---|
| User Code | Text | 20 | Unique number assigned to every information appliance user |
| FirstName | Text | 25 | First name |
| LastName | Text | 25 | Last name |
| HomeNumber | Text | 10 | Home phone number |
| StreetAddress | Text | 50 | Street address |
| City | Text | 30 | City of residence |
| State | Text | 2 | State of residence |
| ZipCode | Text | 5 | Zip code |
| Password | Text | 10 | 6 to 10 character password used for verifying transactions |
| CreditCardName | Text | 50 | Name of person on credit card |
| CreditCard | Text | 3 | Type of credit card (e.g., Visa, MasterCard, etc.) |
| CreditCardNumber | Text | 16 | Credit card number |
| CreditCardExpiration | Date | 4 | Date of expiration (format = mmyy) |
| Gender | Text | 1 | Male or female |
| YearOfBirth | Text | 4 | Year of birth |
| MaritalStatus | Text | 1 | Marital status (single, married, etc.) |
| NumberOfChildren | Integer | 2 | Number of children under 18 living in household |
| LevelOfEducation | Text | 1 | Highest level of education achieved (some high school, high school, 2 year college, college, etc.) |
| EmploymentStatus | Text | 1 | Employment status (full time, part time, etc.) |
| HouseholdIncome | Text | 1 | Household income with ranges (0 to 19,999, 20,000 to 30,000, etc.) |
| I_Computers | | | Interested in information/offers on computers and communications (e.g., hardware, software, peripherals, etc.) |
| I_Entertainment | Text | 1 | Interested in information/offers on entertainment (e.g., dance clubs, concerts, the arts, etc.) |
| I_Hobbies | Text | 1 | Interested in information/offers on personal hobbies (e.g., art, cooking, photography, etc.) |
| I_Food | Text | 1 | Interested in information/offers on home food delivery (e.g., pizza delivery, groceries, etc.) |
| I_Services | Text | 1 | Interested in information/offers on home services (e.g., cleaning, repair, plumbing, etc.) |
| I_Money | Text | 1 | Interested in information/offers on money and finance (e.g., investing, banking, retirement, etc.) |
| I_News | Text | 1 | Interested in information/offers on subscriptions and trial offers for newspapers and magazines |



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| Field | Type | Length | Description |
|---|---|---|---|
| I_Sports | Text | 1 | Interested in information/offers on sports and fitness (e.g., health clubs, golf, skiing, etc.) |
| I_Leisure | Text | 1 | Interested in information/offers on travel and leisure (e.g., car rental, airlines, restaurants, hotels, etc.) |
| I_Other | Text | 1 | Interested in information/offers on a number of other interest areas |



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TABLE 3: Schedule

| Field | Type | Length | Description |
|---|---|---|---|
| A_Number | Integer | 3 | Advertisement number: the number of the advertisement in the list (e.g., for the first advertisement, A_Numb = 1) |
| Advertiser | Text | 4 | Advertiser name: four character code which identifies the advertiser |
| A_Code | Text | 3 | A unique code that identifies which advertisement for a given advertiser is displayed |
| A_Type | Text | 1 | Advertisement type: used to determine which transaction buttons should be enabled for a given advertisement (e.g., a particular advertisement might only need for the call button to be enabled) |
| A_Graphic | Text | 40 | Advertisement Graphic: the file name and location of the graphic image (either jpeg or bitmap) that will be placed in the "Advertisement Window" |
| A_Telephone | Text | 10 | Advertiser Telephone Number: the telephone number of the advertiser (this field only contains information if the advertisement uses the "Call" button) |



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TABLE 4: Client Transactions

| Field | Type | Length | Description |
|---|---|---|---|
| UserCode | Text | 20 | Unique number assigned to every information appliance user |
| A_Number | Integer | 3 | Advertisement number: the number of the advertisement in the list (e.g., for the first advertisement, A_Numb = 1) |
| Advertiser | Text | 4 | Advertiser name: four character code which identifies the advertiser |
| A_Code | Text | 3 | A unique code that identifies which advertisement for a given advertiser is displayed |
| A_Type | Text | 1 | Advertisement type: used to determine which transaction buttons should be enabled for a given advertisement (e.g., a particular advertisement might only need for the call button to be enabled) |
| T_Type | Text | 1 | Transaction type: code which represents which type of transaction a consumer made (e.g., if the consumer places an order, a code of "O" will be placed in the field) |
| Time_Date | Date | 12 | Time/Date of Transaction: the time and date when a transaction was made |



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**TABLE 5: Master Transactions**

| Field | Type | Length | Description |
|---|---|---|---|
| UserCode | Text | 20 | Unique number assigned to every information appliance user |
| Advertiser | Text | 4 | Advertiser name: four character code which identifies the advertiser |
| A_Code | Text | 3 | A unique code that identifies which advertisement for a given advertiser is displayed |
| A_Type | Text | 1 | Advertisement type: used to determine which transaction buttons should be enabled for a given advertisement (e.g., a particular advertisement might only need for the call button to be enabled) |
| T_Type | Text | 1 | Transaction type: code which represents which type of transaction a consumer made (e.g., if the consumer places an order, a code of "O" will be placed in the field) |
| T_Result | Text | 10 | Transaction result: indicates whether the transaction resulted in a sale (used for transactions using the "Call" button where confirmation of the order is required by the advertiser) |
| Time_Date | Date | 12 | Time/Date of Transaction: the time and date when a transaction was made |



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TABLE 6: Orders Queue

| Field | Type | Length | Description |
|---|---|---|---|
| UserCode | Text | 20 | Unique number assigned to every information appliance user |
| Advertiser | Text | 4 | Advertiser name: four character code which identifies the advertiser |
| A_Code | Text | 3 | A unique code that identifies which advertisement for a given advertiser is displayed |
| A_Type | Text | 1 | Advertisement type: used to determine which transaction buttons should be enabled for a given advertisement (e.g., a particular advertisement might only need for the call button to be enabled) |
| T_Type | Text | 1 | Transaction type: code which represents which type of transaction a consumer made (e.g., if the consumer places an order, a code of "O" will be placed in the field) |
| T-Result | Text | 10 | Transaction result: indicates whether the transaction resulted in a sale (used for transactions using the "Call" button where confirmation of the order is required by the advertiser) |
| Time_Date | Date | 12 | Time/Date of Transaction: the time and date when a transaction was made |
| FirstName | Text | 25 | First name |
| LastName | Text | 25 | Last name |
| StreetAddress | Text | 50 | Street address |
| City | Text | 30 | City of residence |
| State | Text | 2 | State of residence |
| ZipCode | Text | 5 | Zip code |
| CreditCardName | Text | 50 | Name of person on credit card |
| CreditCard | Text | 3 | Type of credit card (e.g., Visa, MasterCard, etc.) |
| CreditCardNumber | Text | 16 | Credit card number |
| CreditCardExpiration | Date | 4 | Date of expiration (format = nnyy) |



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TABLE 7: Mail Info Queue

| Field | Type | Length | Description |
|---|---|---|---|
| UserCode | Text | 20 | Unique number assigned to every information appliance user |
| Advertiser | Text | 4 | Advertiser name: four character code which identifies the advertiser |
| A_Code | Text | 3 | A unique code that identifies which advertisement for a given advertiser is displayed |
| A_Type | Text | 1 | Advertisement type: used to determine which transaction buttons should be enabled for a given advertisement (e.g., a particular advertisement might only need for the call button to be enabled) |
| FirstName | Text | 25 | First name |
| LastName | Text | 25 | Last name |
| StreetAddress | Text | 50 | Street address |
| City | Text | 30 | City of residence |
| State | Text | 2 | State of residence |
| ZipCode | Text | 5 | Zip code |



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TABLE 8: Similar Offers

| Field | Type | Length | Description |
|---|---|---|---|
| UserCode | Text | 20 | Unique number assigned to every information appliance user |
| Advertiser | Text | 4 | Advertiser name: four character code which identifies the advertiser |
| A_Code | Text | 3 | A unique code that identifies which advertisement for a given advertiser is displayed |
| A_Type | Text | 1 | Advertisement type: used to determine which transaction buttons should be enabled for a given advertisement (e.g., a particular advertisement might only need for the call button to be enabled) |



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TABLE 9: Assigned Advertisements

| Field | Type | Length | Description |
|---|---|---|---|
| UserCode | Text | 20 | Unique number assigned to every information appliance user |
| Advertiser | Text | 4 | Advertiser name: four character code which identifies the advertiser |
| A_Code | Text | 3 | A unique code that identifies which advertisement for a given advertiser is displayed |
| A_Type | Text | 1 | Advertisement type: used to determine which transaction buttons should be enabled for a given advertisement (e.g., a particular advertisement might only need for the call button to be enabled) |
| A_Graphic | Text | 40 | Advertisement Graphic: the file name and location of the graphic image (either jpeg or bitmap) that will be placed in the "Advertisement Window" |
| A_Telephone | Text | 10 | Advertiser Telephone Number: the telephone number of the advertiser (this field only contains information if the advertisement uses the "Call" button) |
| StartDate | Date | 6 | Date the advertisement is first scheduled to be displayed (format mmddyy) |
| EndDate | Date | 6 | Date the advertisement is last scheduled to be displayed (format mmddyy) |



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TABLE 10: Product Areas

| Field | Type | Length | Description |
|---|---|---|---|
| Advertiser | Text | 4 | Advertiser name: four character code which identifies the advertiser |
| A_Code | Text | 3 | A unique code that identifies which advertisement for a given advertiser is displayed |
| A_ProductArea | Text | 50 | The product area for which an advertisement belongs (e.g., an advertisement from a car dealership would have A_ProductArea = "Automobiles") |



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## CLAIMS

1. A method of targeted advertising, comprising:

storing information associated with a user on a server, the server having access a plurality of presentations;

selecting at least one presentation in response to the information, the presentation being associated with a sponsor and a product;

displaying the presentation on a networked device with a visual display, the networked device being connected to the server; and

providing an input device on the networked device which allows the user to send a request to the server to perform a transaction associated with the presentation, the server being capable of using the information to facilitate completion of the transaction.

2. The method of claim 1, wherein the information includes demographic and psychographic information associated with the user.

3. The method of claim 1, wherein the information includes a record of previous transactions associated with the user.

4. The method of claim 1, wherein the networked device with a visual display is a screen phone.

5. The method of claim 1, wherein the networked device with a visual display is a cellular phone.

6. The method of claim 1, wherein the networked device with a visual display is a personal computer.

7. The method of claim 1, wherein the networked device with a visual display is an Internet enabled television.

8. The method of claim 1, wherein the input device is a Call button configured to automatically call the sponsor.

9. The method of claim 1, wherein the input device is an Order button configured to automatically place an order for the product.



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10. The method of claim 1, wherein the input device is a Mail Info button configured to automatically send a request to the sponsor to mail more information about the product to the user.

11. The method of claim 1, wherein the input device is a Similar Offers button configured to automatically request other presentations associated with other products similar to the product.

12. A method of targeted advertising, comprising:

obtaining a plurality of data associated with a user;

selecting an advertisement to be shown to the user based on the data, the advertisement being associated with a product and an advertiser;

displaying the advertisement to the user on a networked device with a visual display; and

providing on the networked device an input device associated with the advertisement, the input device capable of using the plurality of data to automatically perform a transaction when the input device is activated by the user.

13. The method of claim 12, wherein the plurality of data includes demographic and psychographic information associated with the user.

14. The method of claim 12, wherein the plurality of data includes a record of previous transactions associated with the user.

15. The method of claim 12, wherein the networked device with a visual display is a screen phone.

16. The method of claim 12, wherein the networked device with a visual display is a cellular phone.

17. The method of claim 12, wherein the networked device with a visual display is a personal computer.

18. The method of claim 12, wherein the networked device with a visual display is an Internet enabled television.

19. The method of claim 12, wherein the input device is a Call button configured to automatically call the advertiser.

20. The method of claim 12, wherein the input device is an Order button configured to automatically place an order for the product.



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21. The method of claim 12, wherein the input device is a Mail Info button configured to automatically send a request to the advertiser to mail more information about the product to the user.

22. The method of claim 12, wherein the input device is a Similar Offers button configured to automatically send a request for other advertisements associated with other products similar to the product shown to the user.

23. A device for targeted advertising, comprising:

a networked device having a visual display and an input device, the visual display capable of presenting an advertisement to a user, the input device capable of obtaining information associated with the user; and

a server connected to the networked device, the server capable of performing a transaction associated with the advertisement in response to the information when the input device is activated by the user, the server capable of selecting other advertisements to be presented to the user in response to the information.

24. The device of claim 23, wherein the information includes demographic and psychographic information associated with the user.

25. The device of claim 23, wherein the information includes a record of previous transactions associated with the user.

26. The device of claim 23, wherein the networked device is a screen phone.

27. The device of claim 23, wherein the networked device is a cellular phone.

28. The device of claim 23, wherein the networked device is a personal computer.

29. The device of claim 23, wherein the networked device is an Internet enabled television.

30. The device of claim 23, wherein the input device is a Call button configured to automatically call the advertiser.

31. The device of claim 23, wherein the input device is an Order button configured to automatically place an order for the product.



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32. The device of claim 23, wherein the input device is a Mail Info button configured to automatically request the advertiser to mail more information about the product to the user.

33. The device of claim 23, wherein the input device is a Similar Offers button configured to automatically send a request to the server for other advertisements associated with other products similar to the product presented to the user.



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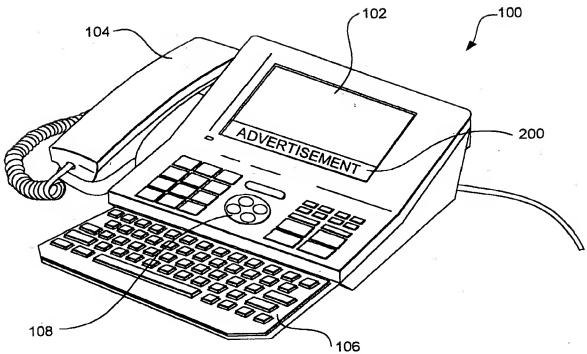


FIG. 1A



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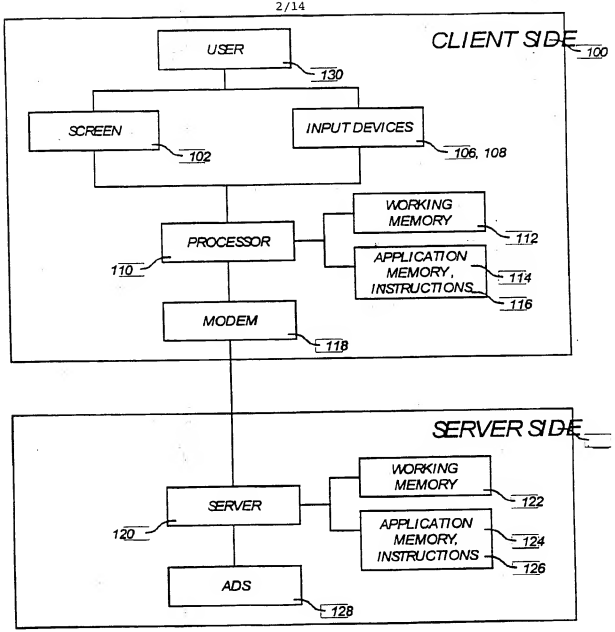


FIG. 1B



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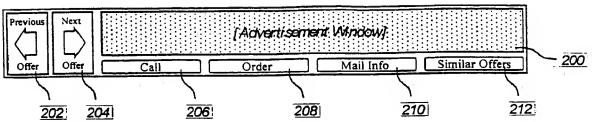


FIG. 1C



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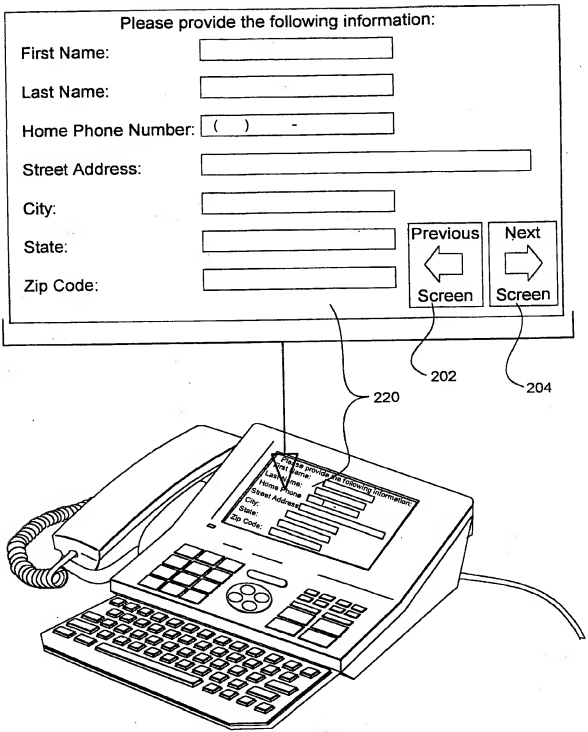


FIG. 2A



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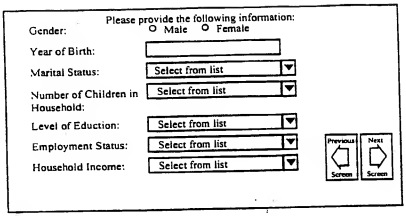


FIG. 2B

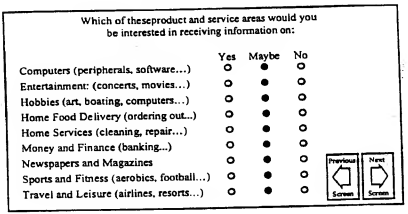


FIG. 2C

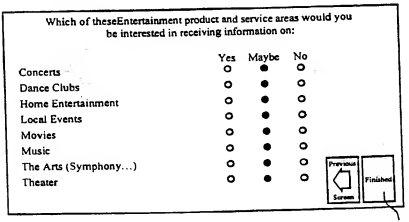


FIG. 2D



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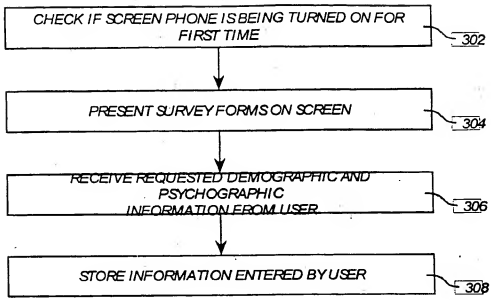


FIG. 3A



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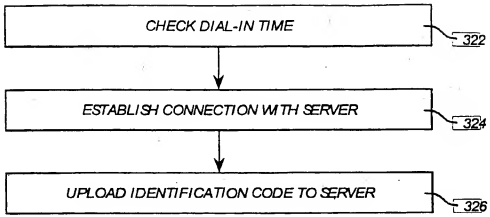


FIG. 3B



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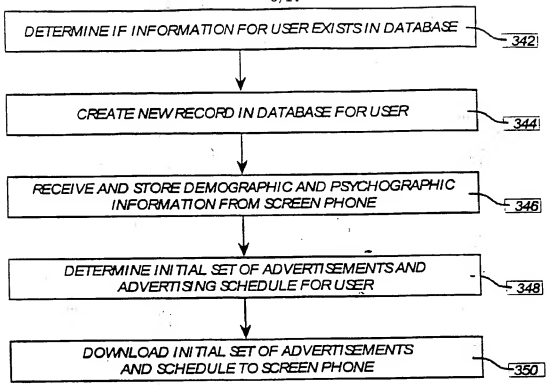


FIG. 3C



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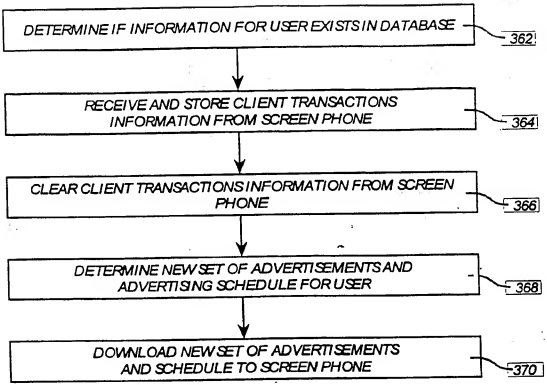


FIG. 3D



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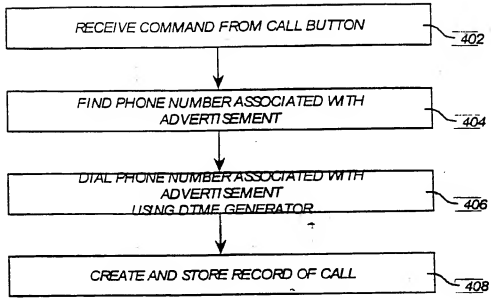


FIG. 4A



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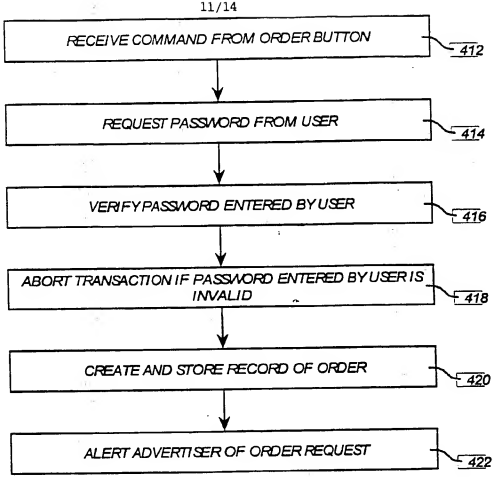


FIG. 4B



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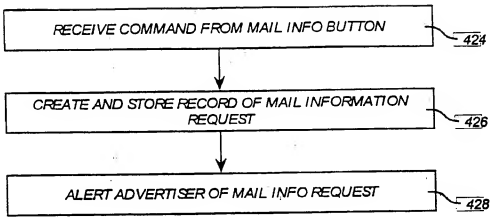


FIG. 4C



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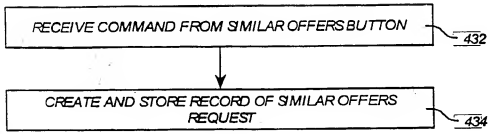


FIG. 4D



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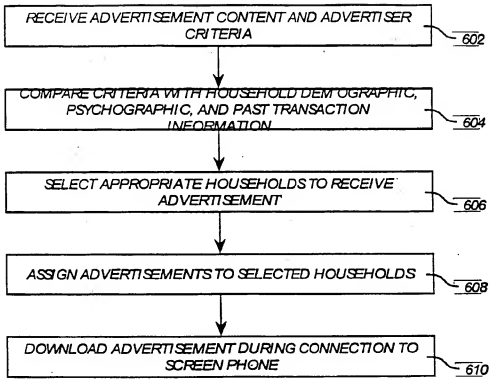


FIG. 5



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# INTERNATIONAL SEARCH REPORT

Inter. onal Application No
PCT/US 99/06632

A. CLASSIFICATION OF SUBJECT MATTER
IPC 6 G06F17/60

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 6 G06F H04L H04M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
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[X] Further documents are listed in the continuation of box C. [X] Patent family members are listed in annex.

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| Date of the actual completion of the international search | Date of mailing of the international search report |
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| 4 August 1999 | 10/08/1999 |

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| European Patent Office, P.B. 5818 Patentlaan 2<br>NL - 2280 HV Rijswijk<br>Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,<br>Fax: (+31-70) 340-3016 | Bowler, A |

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